

Title (en)

METHOD FOR PRODUCING A HARD POLYURETHANE-POLYISOCYANURATE FOAMED MATERIAL

Title (de)

VERFAHREN ZUM HERSTELLEN EINES POLYURETHAN-POLYISOCYANURAT-HARTSCHAUMSTOFFS

Title (fr)

PROCÉDÉ POUR PRODUIRE UNE MOUSSE RIGIDE À BASE DE POLYURÉTHANE-POLYISOCYANURATE

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Abstract (en)

[origin: WO2013117541A1] The present invention relates to a method for producing a hard polyurethane-polyisocyanurate foamed material C, comprising the step of reacting (i) an isocyanate-terminated prepolymer B, with (ii) an activator component A, comprising at least one trimerisation catalyst A1 and at least one propellant A3, in a reaction mixture to form a foam, characterised in that - an isocyanate-terminated prepolymer B, obtained from a reaction of an isocyanate B1 having a mean isocyanate functionality of ≥ 2.3 to ≤ 2.9 and a polyol component B2, is used, and - the activator component A comprises water as a propellant A3 in a quantity of ≥ 5 wt% to ≤ 50 wt%, - the isocyanate index in the reaction mixture lies in a range of ≥ 400 to ≤ 500 , and - the isocyanate content of the prepolymer B lies in a range of ≥ 21 wt% to ≤ 30 wt%, relative to the total mass of the prepolymer B, and - wherein a reaction contribution to polyisocyanurate of $\leq 75\%$ is achieved in the reaction of the prepolymer B and the activator component A. Hard foamed materials C produced in this manner have good flame protection properties with simultaneously good insulating properties and stability properties. The present invention further relates to a hard polyisocyanurate foamed material C produced by the method according to the invention, to the use of such a hard polyisocyanurate foamed material C for producing thermally insulating structural components and to a thermally insulating structural component comprising such a hard polyurethane-polyisocyanurate foamed material C.

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